TITLE: ...EM AND METHOD FOR SPECULATIVELY ISSUING M...Y
REQUESTS WHILE MAINTAINING A SPECIFIED PACKET ORDER
INVENTOR(S): Bruce LaVigne, Lewis Stephen Kootstra
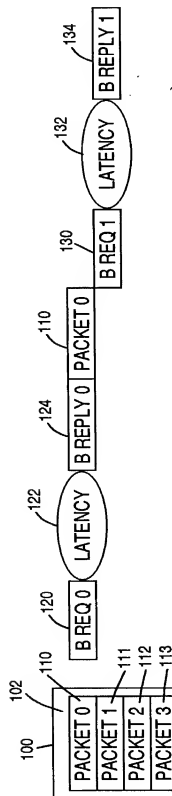Attorney Docket #: HP-100202224-1

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FIGURE 1
(PRIOR ART)

TITLE: SYSTEM AND METHOD FOR SPECULATIVELY ISSUING MEMORY
REQUESTS WHILE MAINTAINING A SPECIFIED PACKET ORDER
INVENTOR(S): Bruce LaVigne, Lewis Stephen Kootstra
Attorney Docket #: HP-100202224-1

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```
              ┌─────────────┐
              │    START    │
              └──────┬──────┘
                     │
                     ▼
     ┌──────────────────────────────────┐
     │ 20 RECEIVE FIRST AND SECOND PACKETS│
     └──────────────┬───────────────────┘
                    │
                    ▼
     ┌──────────────────────────────────┐
     │      25 SEND BUFFER REQUEST       │
     │   CORRESPONDING TO FIRST PACKET   │
     └──────────────┬───────────────────┘
                    │
                    ▼
     ┌──────────────────────────────────┐
     │      30 SEND BUFFER REQUEST       │
     │  CORRESPONDING TO SECOND PACKET   │
     │ PRIOR TO RECEIVING A BUFFER REPLY FOR│
     │            FIRST PACKET           │
     └──────────────┬───────────────────┘
                    │◄─────────────────────┐
                    ▼                      │
              ╱───────────╲                │
            ╱       35      ╲      NO       │
          ╱ RECEIVED A BUFFER  ╲───────────┘
          ╲ REPLY FOR FIRST    ╱
            ╲   PACKET?       ╱
              ╲───────────╱
                    │ YES
                    ▼
     ┌──────────────────────────────────┐
     │ 40 FORWARD FIRST PACKET PRIOR TO  │
     │   FORWARDING SECOND PACKET        │
     └──────────────┬───────────────────┘
                    │
                    ▼
              ┌─────────────┐
              │   FINISH    │
              └─────────────┘
```
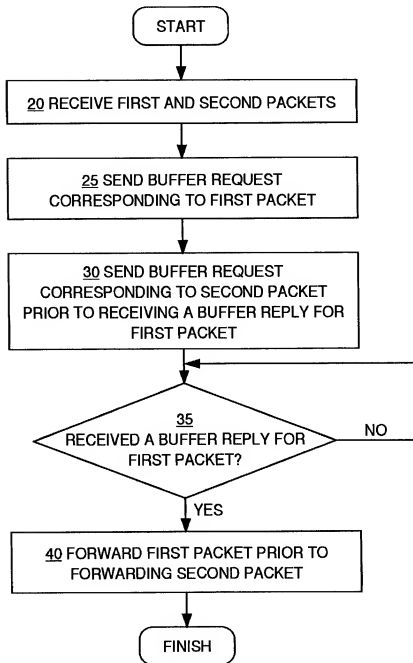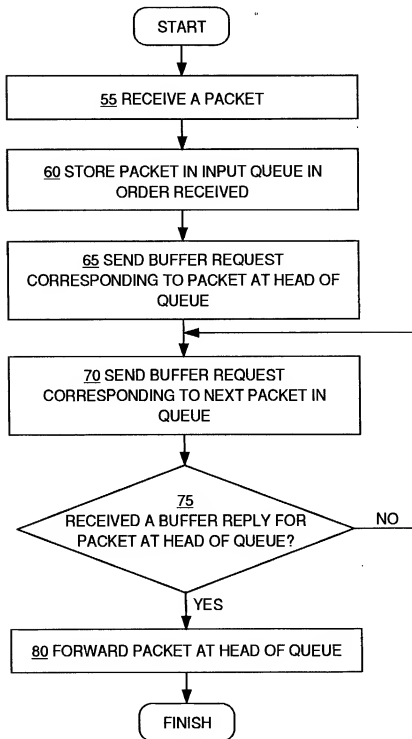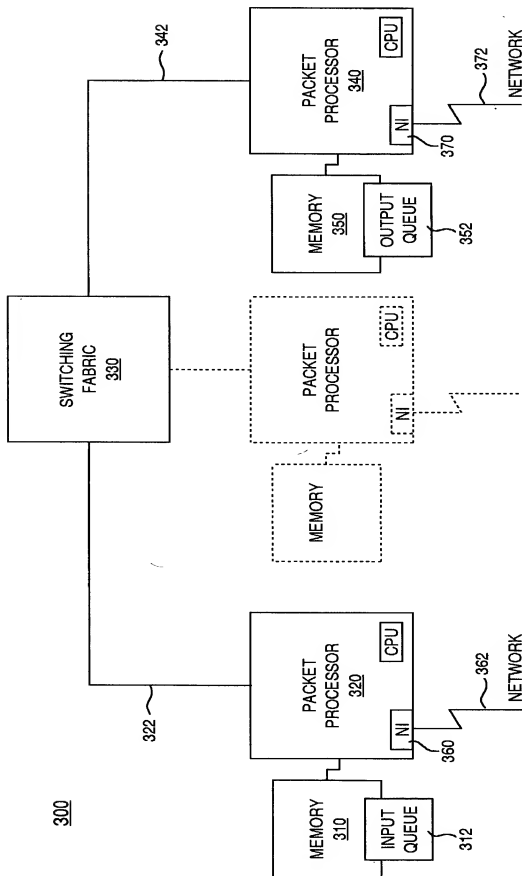
FIGURE 2

TITLE: SYSTEM AND METHOD FOR SPECULATIVELY ISSUING MEMORY
REQUESTS WHILE MAINTAINING A SPECIFIED PACKET ORDER
INVENTOR(S): Bruce LaVigne, Lewis Stephen Kootstra
Attorney Docket #: HP-100202224-1

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```
                        ( START )
                            │
                            ▼
      ┌─────────────────────────────────────────┐
      │        55 RECEIVE A PACKET               │
      └─────────────────────────────────────────┘
                            │
                            ▼
      ┌─────────────────────────────────────────┐
      │   60 STORE PACKET IN INPUT QUEUE IN      │
      │          ORDER RECEIVED                  │
      └─────────────────────────────────────────┘
                            │
                            ▼
      ┌─────────────────────────────────────────┐
      │      65 SEND BUFFER REQUEST              │
      │  CORRESPONDING TO PACKET AT HEAD OF      │
      │               QUEUE                      │
      └─────────────────────────────────────────┘
                            │
                            ▼
      ┌─────────────────────────────────────────┐◄──────┐
      │      70 SEND BUFFER REQUEST              │       │
      │  CORRESPONDING TO NEXT PACKET IN         │       │
      │               QUEUE                      │       │
      └─────────────────────────────────────────┘       │
                            │                            │
                            ▼                            │
                 ╱──────────────────────╲                │
                ╱          75            ╲     NO         │
               ╱  RECEIVED A BUFFER REPLY FOR ╲───────────┘
               ╲  PACKET AT HEAD OF QUEUE?   ╱
                ╲                          ╱
                 ╲────────────────────────╱
                            │
                           YES
                            ▼
      ┌─────────────────────────────────────────┐
      │  80 FORWARD PACKET AT HEAD OF QUEUE      │
      └─────────────────────────────────────────┘
                            │
                            ▼
                       ( FINISH )
```

FIGURE 3

TITLE: ...M AND METHOD FOR SPECULATIVELY ISSUING M...Y
REQUESTS WHILE MAINTAINING A SPECIFIED PACKET ORDER
INVENTOR(S): Bruce LaVigne, Lewis Stephen Kootstra
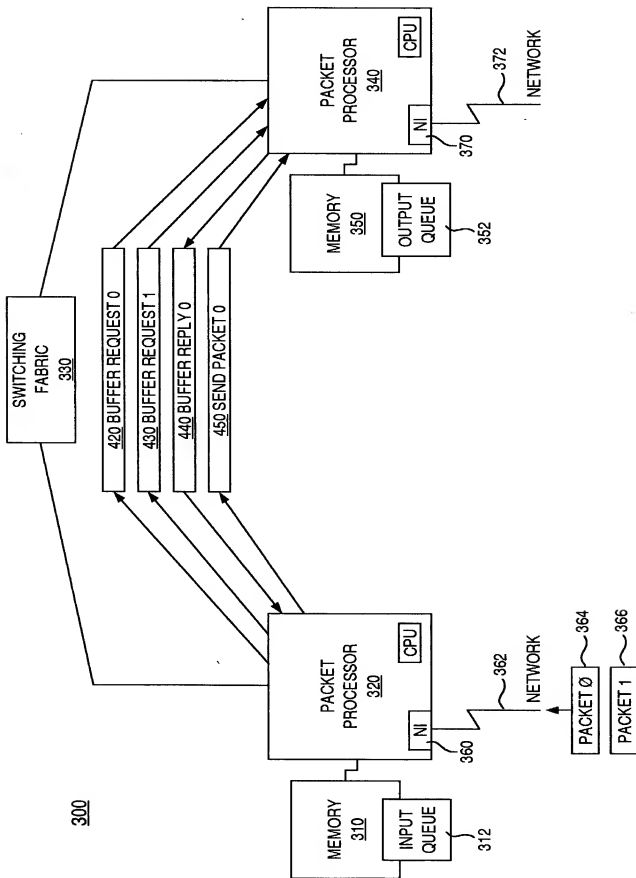Attorney Docket #: HP-100202224-1

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FIGURE 4

TITLE: ⬤M AND METHOD FOR SPECULATIVELY ISSUING M⬤Y
REQUESTS WHILE MAINTAINING A SPECIFIED PACKET ORDER
INVENTOR(S): Bruce LaVigne, Lewis Stephen Kootstra
Attorney Docket #: HP-100202224-1

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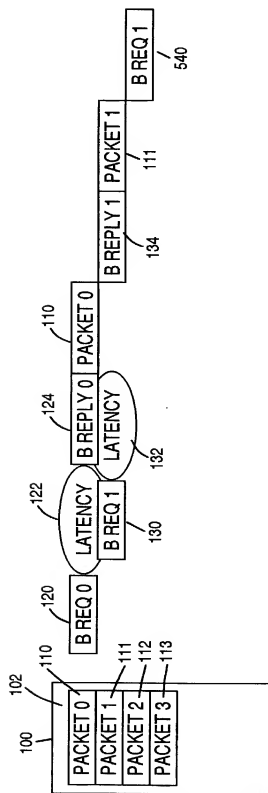FIGURE 5

TITLE: ⬤EM AND METHOD FOR SPECULATIVELY ISSUING M⬤Y
REQ⬤STS WHILE MAINTAINING A SPECIFIED PACKET ORDER
INVENTOR(S): Bruce LaVigne, Lewis Stephen Kootstra
Attorney Docket #: HP-100202224-1

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FIGURE 6